**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUL 11 2007

Mr. Charles Maguire, Manager
Water Quality Assessment Section (MC-150)
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, TX 78711-3087

Dear Mr. Maguire:

The Environmental Protection Agency (EPA) has completed its technical review of the site-specific aluminum acute criterion which was submitted to EPA by letter dated May 4, 2007. The site-specific criterion will apply within a portion of Gibbons Creek Reservoir, an unclassified lake with a presumed high aquatic life use according to §307.4(h)(3) of the 2000 *Texas Surface Water Quality Standards* (TX WQS). EPA guidance allows states to develop site-specific criteria for waters for which default water quality criteria may not be appropriate.

Under Texas Pollutant Discharge Elimination System (TPDES) Permit No. 02120, the Texas Municipal Power Agency (TMPA) is authorized to treat and discharge wastewater from the Gibbons Creek Stream Electric Station, a coal-powered, steam electric power generating facility, to an on-site unnamed ditch and thence to Gibbons Creek Reservoir (within Texas segment 1209), in Grimes County. Due to the water quality characteristics of the TMPA discharge from outfall 001, a water effects ratio (WER) study was performed (using laboratory water and simulated downstream water consisting of 60% effluent from outfall 001 and 40% dilution water) to determine if a site-specific acute water quality criterion for aluminum would be more appropriate than the state-wide aluminum acute criterion.

Our review of the WER study indicates that the statewide acute water quality criterion for aluminum may be adjusted to account for site-specific physical and chemical interactions which mitigate the toxicity of aluminum to aquatic organisms. The methodology used to determine the site-specific criterion is consistent with EPA's WER guidance for metals and with the previously-approved WER provision in §307.6(c)(9) of the TX WQS, adopted July 26, 2000. From the study, a final WER of 6.81 was calculated from the geometric mean of the four individual WERs derived from the toxicity tests conducted on *Ceriodaphnia dubia*.

Based on our technical review of the study performed, the 2000 TX WQS acute criterion for aluminum and the resulting WER of 6.81, EPA has determined that a site-specific freshwater acute water quality criterion of 6,750 $\mu$g/L is approvable. However, in order for EPA to take a formal approval action under §303(c) of the Clean Water Act, fulfillment of the public participation requirements found at 40 CFR Part 25 for this site-specific water quality standards revision is necessary. In order to fulfill these requirements and to complete TCEQ's water quality standards submission, we request that TCEQ submit to EPA a copy of the public notice

for this site-specific water quality standards revision, along with any comments received during the public comment period (or documentation that no comments were received). The public participation process may be completed through the permit application process, as noted in §307.6(c)(9) of the TX WQS.

If you should have any questions, please call me at (214) 665-6644 or have your staff contact Melinda Nickason at (214) 665-8059.

Sincerely yours,

Philip Crocker
Chief
Watershed Management Section (6WQ-EW)

cc: Debbie Miller, TCEQ - Water Quality Assessment Section (MC-150)